



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,169	11/14/2001	Matthew G. Markstaller	450-55438	7337
24197	7590	05/19/2004		
KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET SUITE 1600 PORTLAND, OR 97204			EXAMINER	
			JENKINS, JERMAINE L	
			ART UNIT	PAPER NUMBER
			2855	

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	10/003,169	Applicant(s)	MARKSTALLER ET AL.
Examiner	Jermaine Jenkins	Art Unit	2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1)  Responsive to communication(s) filed on 03 May 2004.
- 2a)  This action is FINAL. 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4)  Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) 11 is/are allowed.
- 6)  Claim(s) 1-10 and 12-43 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some \*
  - c)  None of:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 & 12-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slezinger et al (4,073,188) in view of Meyer (4,735,085).

In regards to claims 1; 6, 7, 14, 33, 37 & 39-43, Slezinger et al teaches a wind tunnel having a housing having at least one air inlet "C" and at least one air outlet "D", at least one air mover (3, being read as a fan) adapted to create flow of air through the housing in a first direction from the air inlet "C" toward the air outlet "D" (Column 3, lines 23-30), a vehicle support (14, being read as a platform) positioned at least partially within the housing and which has an inclined support surface (46, being read as a deck) which is angled with respect to horizontal and is operable to support the vehicle such that the vehicle is biased toward movement in the first direction (Column 6, lines 15-22; Column 7, lines 24-41). However, Slezinger et al does not teach a force measurer coupled to the vehicle and operable to measure the force resulting from the impact of moving air against the vehicle.

Meyer teaches a flow measurement system having a force measurer (52, being read as a strain gauge) coupled to the vehicle (22, being read as a fuselage) and operable to measure the force resulting from the impact of moving air against the vehicle (Column 3, lines 41-64).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a force measurer onto any measuring apparatus as taught by Meyer in the wind tunnel of Slezinger et al for the purpose of providing a more dependable and precise force measurement information (Meyer; Column 1, lines 56-58).

With respect to claim 2, Slezinger et al teaches the angle of incline of the inclined support surface is adjustable (Column 6, lines 15-22; Column 7, lines 24-41).

With respect to claim 3, Slezinger et al teaches the vehicle support (14) comprises at least one inclined ramp (45, being read as fairings) (See Figure 2).

With respect to claim 4, Slezinger et al teaches the housing having a floor and the inclined support surface (46) comprises a portion of the floor of the housing (See Figure 2).

With respect to claim 5, Slezinger et al and Meyer teaches the claimed invention except for the inclined support is from about one degree to about five degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture an inclined support having desired angles from about one degree to about five degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (See MPEP 2144.04; *In re Aller*, 105 USPQ 233).

With respect to claims 8 & 20 Slezinger et al teaches at least one air mover (3, being read as a fan) (Column 3, lines 23-30).

With respect to claims 9, 15 & 16, Meyer teaches the force measurer (52) comprises at least one load cell positioned to engage the vehicle (22) (Column 3, lines 41-64).

In regards to claims 10, 12, 13, 17, 18, 21, 23-27, 29-32 & 35 Slezinger et al and Meyer teaches the claimed invention except for a plurality of air outlets, fans, diffusers, ramps, and ducts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of air outlets and a plurality of fans, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art (See MPEP 2144.04; *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8).

In regards to claims 19, 22, 28 & 38, Slezinger et al and Meyer teaches the claimed invention except for a contraction cone having a contraction cone air inlet and a contraction cone air outlet in communication with the first end portion of the test section and air flow ducts are arranged in a generally horseshoe configuration. It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the inlets to the shape of a cone, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art (See MPEP 2144.04; *In re Dailey*, 149 USPQ 47).

#### ***Allowable Subject Matter***

3. Claim 11 is allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:  
The prior art does not disclose or suggest a wind tunnel for use in testing a vehicle wherein the vehicle is a truck or truck tractor with a pseudo-trailer, the pseudo-trailer having a front surface, the cross-sectional dimension of the air outlet of the housing which is unblocked by the truck or

truck tractor and pseudo-trailer being approximately the same as the cross-sectional dimension of air inlet of the housing.

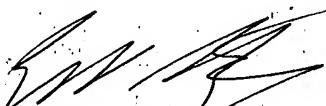
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 571-272-2179. The examiner can normally be reached on Monday-Friday 8am-430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jermaine Jenkins  
A.U. 2855



EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800